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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,220	02/22/2002	Isabelle Rollat-Corvol		1821

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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
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1615

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,220

Applicant(s)

ROLLAT-CORVOL ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/2/02
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

Applicants response dated 12-10-03 is acknowledged.

Claims 1-9 are pending.

#### ***Response to Arguments***

The following rejection of 9-26-03 has been maintained:

#### ***Claim Rejections - 35 USC § 112***

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Instant claims recite “relatively unpolymerized” which is vague because instant application provides no definition or description as what constitutes “relatively unpolymerized”, i.e., 5% or 10% or 0.1% polymerization? What percentage is considered relatively unpolymerized? A clarification or correction is requested.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of US 4,344,763 (hereafter ‘763) in view of EP 464835 (EP 835) OR EP 159628 (EP 628) in view of EP 835.

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US '763 teaches hair setting compositions containing aminoalkyloxysilane compounds to provide hold to the hair by forming a film on the hair upon application. The composition further contains titanate ester and isopropanol (col. 2). The aminosilicones of '763 contains hydrolysable alkoxy groups (col.2 and col. 3) such that upon hydrolysis the compounds are polymerized. '763 do not teach neutralizing agent of the instant claims.

EP 628 teaches hair-strengthening compositions containing alkyltrialkoxysilane compounds substituted with amino groups (pages 3-4). EP '628 teaches the presence of solvents such as ethanol, isopropanol (page 6) for stabilizing their composition containing silicone compounds. However, EP 628 fails to teach the neutralizing agent of the instant claims.

EP 835 teaches hair fixatives comprising pre-hydrolyzed organofunctional silanes as film forming agents for their improved water resistance, high hold and water compatibility, improved curl retention (page 3, lines 40-58). EP 835 suggests that when the silane compound has a positive charge, the anion may be a weak acid and when the compound is aminofunctional, it can be protonated or neutralized with a protonic acid or a Lewis acid, respectively (page 835).

Accordingly, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to employ an appropriate protonic or Lewis acid in the compositions of US '7363 or EP 628 so as to obtain a pre-hydrolyzed organosilicone in the compositions of US '763 and EP 682 because EP 835 teaches that the pre-hydrolyzed organosilicone compounds treated as above impart good curl retention, water compatibility and resistance and thus impart a good hold on the hair. While EP 835 fails to teach specific sulfuric acid or its salts and neutralization in the claimed ratios, using an appropriate Lewis acid or protonic acid would have been within the scope of a skilled artisan. Further, instant claim recites a neutralization of 0.001% to 99%,

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where 0.001% represents a negligible neutralization of the organosilicone. Accordingly, it appears that the neutralization step is not critical to the instant claims. Therefore, absent criticality with respect to the specific sulfuric acid, choosing an appropriate acid to hydrolyze the silicone of US '763 and EP 628 would have been obvious for a skilled artisan.

Applicant's arguments filed 12-10-03 have been fully considered but they are not persuasive.

Rejection under 35 USC 112, second paragraph:

Applicants argue that the expression “relatively unpolymerized” of the claims is definite because the definition will be recognized by one of an ordinary skill in the art to mean that unpolymerized water-soluble organosilicone compounds are chosen from organosilanes comprising a silicon atom and relatively unpolymerized water-soluble organosilicone compounds are chosen from organosiloxanes comprising two or three silicon atoms. Further, applicants submit that the term “relatively unpolymerized” is definite because the number of monomers is explicitly recited in the claim 1 and in the specification on page 4, lines 30-33 and on page 5, lines 13-16.

Applicants arguments are considered but not found persuasive because instant claims recite the limitation “one or more unpolymerized or relatively unpolymerized” precedes the limitation “water-soluble organosilicone compounds are chosen from organosilanes comprising a silicon atom and relatively unpolymerized water-soluble organosilicone compounds are chosen from organosiloxanes comprising two or three silicon atoms”. Thus, even though applicants explain that the unpolymerized silicon compounds are chosen from organosilanes comprising a

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silicon atom and relatively unpolymerized water-soluble organosilicone compounds are chosen from organosiloxanes comprising two or three silicon atoms, the claims presented do not clearly recite as to how relatively unpolymerized are selected from organosilicone compounds having a single silicone atom or how the unpolymerized compounds are selected from compounds having two or three silicon atoms. It is suggested to applicants to amend the claims so as to read that unpolymerized water-soluble organosilicone compounds are chosen from organosilanes comprising a silicon atom and relatively unpolymerized water-soluble organosilicone compounds are chosen from organosiloxanes comprising two or three silicon atoms.

Rejection under 35 USC 103(a):

Applicants state that present invention solves the technical problem associated with organosilicone hair fixing/styling compositions, making it possible to obtain sufficient and remaining cosmetic effect in rinse-out or leave-in-mode. Applicants argue that US '763 describes a process of hair setting where the composition comes in to contact with water on hair resulting in polymerization and that the composition is kept anhydrous to prevent polymerization and also argue that instant composition does not contain a catalyst. Applicants did not argue with respect to the organosilicone compound taught by '763. With respect to the catalyst, instant claim recites "comprising" language that allows the presence of the catalyst of '763.

Applicants did not argue with respect to the teaching of alkyltrialkylloxysilane by EP 628. With respect to EP 835 applicants state that the reference teaches a method for imparting curl retention, wherein the improvement consists of the use of an organosilicone compound, which is a pre-hydrolyzed organofunctional silane, as a film-forming ingredient. Applicants traverse

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examiner's motivation to combine the teachings of US '763 with 835 or EP 628 with EP 835 because nothing in these documents however suggests to one of ordinary skill to add a neutralizing agent to the setting composition in order to obtain a stable cosmetic composition, in particular for treating the hair, which is essentially aqueous and which makes it possible to obtain a sufficient and remaining cosmetic effect in rinse-out or leave-in mode. It is argued that indeed, the neutralizing agent described in EP 835 imparts good curl retention, water compatibility and resistance and thus imparts good hold on the hair, however the use of this ingredient would not have solved the technical problem of the skilled person. Applicants arguments are not persuasive because, instant claims are directed to a composition and do not recite the argued limitations of properties of the composition. Besides, applicants have not argued the teachings of the above references regarding the organosilicone compounds and the fact that the compounds can be hydrolyzed to polymerization. The motivation to combine the references clearly comes from the teachings of EP 835, which suggests the use of hydrolyzed silicone compounds for film-forming agents that polymerize on hair and the adding of a neutralizing agent such as a protonic acid. Both EP 628 and EP 835 teach polymerization of the organosilanes compounds and both teach for hair setting or styling compositions. In addition, EP 835 teaches neutralizing the compounds with a protonic acid. Further, the example III on page 5 recites claimed sulfuric acid. Therefore, one of an ordinary skill in the art would have been able to employ a protonic acid such as sulfuric acid so as to neutralize the organosilane compound of EP 628 or US'763 with an expectation obtain a pre-hydrolyzed organosilicone also suggests neutralization of the silicone compounds and thus result in good curl retention, water compatibility and resistance. It is noted that applicants argue that these properties are not the same as that solved by instant invention.

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However, it is examiner's position that water resistance and compatibility of a composition is related to stability and hence the combination of above is expected to render a stable composition. Applicants argue that nothing in the cited three documents would have motivated one of ordinary skill in the art to select specifically the sulfuric acid among the protonic acids and the Lewis acids. However, example III of EP 835 recites sulfuric, which is a known protonic acid.

Applicants argue that in Example 1 of the present application, the applicants demonstrate that sulfuric acid provides an unexpected effect with regard to the quality of the obtained film, which is not disclosed in the three cited documents. Applicants submit that the subject matter of the presently claimed invention was not obvious in view of the cited documents and that the claims are submitted to be in condition for allowance. As explained, EP 835 teaches sulfuric acid in example III that is a well-known protonic acid in the art (see attached US patent No. 5453476, brief summary of text). Further the unexpected results are shown with a specific aminopropyltriethyloxy compound and not with other compounds that fall in the broad scope of claim 1. Therefore, the rejection has been maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37



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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lakshmi S Channavajjala  
Examiner  
Art Unit 1615  
April 23, 2004

  
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